

REMARKS

The Office Action dated September 9, 2005, has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

Claims 46-69 have been added, and claims 32-33 and 38-39 have been amended to more particularly point out and distinctly claim the subject matter of the invention. Claims 46-69 are supported, for example, by original claims 22-45 and the corresponding written description. The amendments to claims 32-33 and 38-39 are solely to correct minor typographic or clerical errors. No new matter has been added.

Claims 1-69 are currently pending in the application, of which claims 1, 13, 22, 34, 46, and 58 are independent claims. Claims 1-69 are respectfully submitted for consideration.

Rejections for Obviousness-Type Double-Patenting

Claims 1, 13, 22, and 34 were rejected for obviousness-type double-patenting over claims 1, 3, 5, and 7 of U.S. Patent No. 6,426,945 of Sengodan ("Sengodan"). A Terminal Disclaimer in compliance with 37 C.F.R. 1.321(c) has been filed herewith. It is respectfully submitted that the obviousness-type double-patenting rejection is moot in view of the Terminal Disclaimer.

Rejections under 35 U.S.C. 103(a)

Claims 1-45 were identified as rejected under 35 U.S.C. 103(a) as obvious in view of U.S. Patent No. 6,104,695 of Wesley et al. Applicant notes that the rejection only addressed claims 1, 5-11, 22, 26-32, 34, and 38-45. Claims 2-4, 23-25 and 35-37 were indicated as containing allowable subject matter, and claims 13-21 were indicated as containing subject matter that would be allowable if a terminal disclaimer were filed. Therefore, Applicants assume that the Office Action only intended to reject claims 1, 5-11, 22, 26-32, 34, and 38-45. Applicant notes that claim 33 is not particularly addressed, either with a basis for rejection or a statement of allowability. Applicant respectfully requests that if a rejection is made of claim 33 (or of any other claims beyond claims 1, 5-11, 22, 26-32, 34, and 38-45), such a rejection be made non-final. Applicant respectfully traverses the rejection.

Independent claim 1, upon which claims 2-12 depend, is directed to a method for providing resource discovery. The method includes sending a first request message having a first selected scope. The method also includes analyzing whether a confirm message is received from a discovered resource within the first selected scope in response to the first request message. The method further includes sending a second request message having a second selected scope when a confirm message is not received from a discovered resource in response to the first request message. The second selected scope is greater than the first selected scope.

Independent claim 13, upon which claims 14-21 depend, is directed to a method for locating an endpoint for setting up a connection. The method includes sending a first request message having a first selected scope to a known multicast group. The method also includes setting a timer responsive to the first request message being sent. The method further includes detecting whether a confirm message is received from an endpoint prior to the expiration of the timer. The method additionally includes terminating endpoint locating when a confirm message is received from an endpoint prior to the expiration of the timer. The method also includes determining whether a scope increase is allowed when a confirm message is not received from an endpoint before the expiration of the timer. The method further includes terminating endpoint locating when a scope increase is not allowed. The method additionally includes increasing the scope to the second selected scope when a scope increase is allowed. The method also includes resetting the timer. The method further includes sending a second request message having the second selected scope when a confirm message is not received from an endpoint in response to the first request message. The second selected scope is greater than the first selected scope.

Independent claim 22, upon which claims 23-33 depend, is directed to an article of manufacture for providing resource discovery using multicast scope selection. The article of manufacture includes a computer readable medium having instructions for causing a processor to locate a resource for establishing a connection thereto according to a method. The method includes sending a first request message having a first selected

scope. The method also includes analyzing whether a confirm message is received from a discovered resource within the first selected scope in response to the first request message. The method further includes sending a second request message having a second selected scope when a confirm message is not received from a discovered resource in response to the first request message. The second selected scope is greater than the first selected scope.

Independent claim 34, upon which claims 35-45 depend, is directed to a discover including a discovery unit and an application operatively coupled to the discovery unit. The application sends a notification to the discovery unit for locating an endpoint application. The discovery unit sends a first request message having a first selected scope to a multicast group, analyzes whether a desired confirm message is received from an endpoint application in response to the first request message, and sends a second request message having a second selected scope when a desired confirm message is not received from the endpoint application in response to the first request message. The second selected scope is greater than the first selected scope.

Applicants respectfully submit that the presently pending claims recite subject matter that is neither disclosed nor suggested in the cited prior art.

Wesley is directed to a Time To Live (TTL) computation and correction mechanism to perform localized repairs in a multicast data distribution setup/framework. In Wesley a standard destination device requests repair (in the form of a repair data unit)

from a repair head. The repair head responds with the requested repair data unit. Wesley proposes trying to set the TTL level as small as possible to minimize unnecessary traffic.

In order to accomplish that goal, Wesley proposes having a head destination device monitor the path between the head destination device and associated standard destination devices. The head device sends out a control message with a particular TTL value and indicates that value in the message. As the message propagates in the network, the messages TTL is decremented. When a standard destination device receives the control message, it compares the TTL value in the message with current (decremented) TTL value. If the result is non-zero, then a message is returned to the head destination device indicating the excess TTL. If the TTL difference is calculated to be zero by the standard destination device no message is sent. If, after a predetermined time, no control message is received by the standard destination device, a transmission failure message is sent from the standard destination device to the head destination device.

Claim 1 recites “sending a second request message having a second selected scope when a confirm message **is not received** from a discovered resource in response to the first request message, the second selected scope being greater than the first selected scope.” Claim 13 recites “sending a second request message having the second selected scope when a confirm message **is not received** from an endpoint in response to the first request message.” Claim 22 recites “sending a second request message having a second selected scope when a confirm message **is not received** from a discovered resource in response to the first request message.” Claim 34 recites “sends a second request message

having a second selected scope when a desired confirm message **is not received** from the endpoint application in response to the first request message.” Emphasis has been added to the recitations in each of the claims. Wesley does not teach any of the above recited elements, and the Office Action admits that Wesley does not.

Although the Office Action admits that Wesley does not teach sending a request message having a second selected scope when a confirm message is not received from a discovered resource in response to the first request message, the second selected scope being greater than the first selected scope. The Office Action, however, asserts that Wesley’s opposite scheme of sending a request message having a second selected scope when a transmission failure message is received renders obvious sending a request message having a second selected scope when a confirm message is not received, unless there are unexpected results.

Sending a request message having a second selected scope when a confirm message is not received would not work in the embodiments provided by Wesley. In Wesley, no reply message from the standard destination device means that that the TTL difference is zero. This approach, as part of Wesley’s system, reduces the number of transmissions if the TTL difference is usually zero. So, on the one hand, the “no response” option is already being used for other purposes in Wesley and the use of “no response” works to limit network traffic in a system in which at least some standard destinations devices are reached with a TTL difference of zero. Accordingly, in such a system, one of ordinary skill in the art would not be motivated to send a request message

having a second selected scope when a confirm message is not received. This is because not receiving a confirm means everything is ok, and because fundamentally altering Wesley to incorporate a confirmation message every time the system had zero excess TTL would increase network traffic.

Accordingly, one of ordinary skill in the art would not be motivated to modify Wesley to include sending a request message having a second selected scope when a confirm message is not received. Therefore, Wesley does not teach or suggest all of the elements of any of the presently pending claims.

New Claims

Claims 46-69 have been added to more particularly point out and distinctly claim what the applicant regards as his invention. It is respectfully submitted that claims 46-69 are adequately supported by the original specification, and do not introduce new matter.

Conclusion


In view of the above amendments and remarks, it is respectfully submitted that each of claims 1-69 recite subject matter that is neither disclosed nor suggested in the cited prior art. It is therefore respectfully requested that all of claims 1-69 be allowed, and this application be passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by

telephone, the applicant's undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicant respectfully petitions for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



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